

REMARKS

Claims 1-3 are in the application. Applicants have amended claims 1 and 3 in response to the Examiner's rejection under 35 U.S.C. § 112, paragraph 2. In this regard, applicants have addressed all of the issues raised by the Examiner, and it is believed that the rejections are overcome.

Applicants have also amended the abstract in accordance with the Examiner's requirement.

The remaining rejection was to claims 1-3 under 35 U.S.C. § 102(b) as being anticipated by Eggers et al. As now revised, applicants' independent claim is directed to a method for tissue-selective treatment in surgery comprising the steps of: positioning a probe in an area of a diseased change after placing on a body organ or body tissue to be treated; activating tissue selection in that different electrical and/or electromagnetic stimulus signals which can be preadjusted or modulated are sent to the tissue in order to stimulate the latter; distinguishing healthy tissue parts from pathologically changed tissue parts by evaluating responses to these stimuli; and selecting and/or removing any pathologically changed tissue; wherein, in the case of an expected stimulus response identifying healthy tissue, repositioning the probe and activating the tissue selection again, or when the stimulus response identifying pathologically altered tissue is absent or unexpected, carrying out the corresponding therapeutic or surgical treatment by the same probe at the selected site.

The rejection over Eggers does not lie as now discussed.

The disclosure of Eggers relates to a device and a method for carrying out an in-situ characterization of tissues, wherein malignant tissue and benign tissue are distinguished based on the measured properties. In a preferred embodiment, the characterization of the tissue is carried out by measuring the electrical properties of the tissue, e.g., the electrical impedance. The actual treatment of the malignant tissue is carried out by inducing cauterization through heating the tissue.

The device disclosed by Eggers uses the measurable differences of one or more electromagnetic properties (for example, electrical impedance) of the normal or malignant tissue for in-situ discrimination and assessment of the degree of malignancy and the resulting decision for treatment.

In contrast, in the claimed invention of applicants, the distinction between malignant and benign tissue is not carried out by measuring the electromagnetic properties of the tissue. Instead, defined stimulus signals are sent to the tissue and its response signals are evaluated in a corresponding manner.

For this purpose, the probe is positioned in the diseased tissue and the tissue selection is started from that point. The search for diseased tissue proceeds continuously or iteratively. In our Application, tissue selection is carried out by sending different preadjustable or modulatable stimulus signals to the tissue or the affected area. The stimulus responses may be various physical reactions (see also page 3 from [0016]).

The Examiner maintains that Eggers' solution discloses tissue selection (between healthy and diseased tissue) by "different preadjustable or modulatable electrical and/or electromagnetic stimulus signals." Applicants strongly disagree with this position.

In the description proposed by Eggers, the tissue selection is carried out exclusively by measuring the electrical properties. No other disclosure can be taken from the description. While the measurement of the electrical impedance is designated as a passive measurement, our claimed evaluation of the responses of the tissue to determined stimulus signals must be designated as active and is therefore completely different.

The tissue to be selected is stimulated by the stimulus signals. Depending on whether the stimulated tissue is healthy or diseased, the stimulus response will conform to the expected response (healthy tissue) or will not correspond or will fail to appear (diseased tissue). But stimulation of this kind with a corresponding evaluation of the stimulated responses can hardly be compared to a simple measurement of the electrical properties. The two methods cannot even be regarded as close.

Since no stimulation (but rather a simple measurement of the electrical properties) is carried out in Eggers for tissue selection, no evaluation of the stimulus responses is required nor, for that matter, is it even possible. On the contrary, in Eggers either a preceding value of the measured electrical impedance (diagnostic mode) or the output voltage (therapeutic mode) is displayed on the display 45 of the control unit 40.

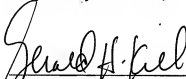
In the claimed invention of applicants, a probe is positioned in the region of the pathological change and the tissue selection is activated in that different preadjustable or modulatable electrical and/or electromagnetic stimulus signals are sent to the tissue. By evaluating the responses to these stimuli, the healthy tissue parts can be distinguished from the pathologically changed tissue parts. When no stimulus response or an unexpected stimulus response is received, the appropriate treatment is carried out by the same probe at the selected location. Otherwise, the probe is repositioned and the tissue selection is activated once again.

The substantial difference consists in that Eggers determines exclusively electrical properties (e.g., impedance) of the tissue in order to carry out a selection. A stimulation does not take place. In accordance with the present invention, on the other hand, diseased tissue is selected in that different stimulus signals are sent to the tissue and evaluated. This serves only to prevent injury to healthy tissue. A detection of healthy tissue does not take place in this sense.

Accordingly, the Examiner's statement that "measuring an electrical property of the tissue" is to be regarded as analogous to "[sending] difficult [sic] electrical and/or electromagnetic stimulus signals to the tissue" is simply not the case nor would one of ordinary skill so consider it.

Based on the above, it is believed that claims 1-3 are indeed patentably distinguishable over the Eggers reference which neither teaches nor suggests applicants' invention. Accordingly, claims 1-3 should be allowed and the application promptly passed to issue.

Respectfully submitted,

A handwritten signature in dark ink, appearing to read "Gerald H. Kiel", is written over a horizontal line.

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Enc.: Replacement Abstract